A Nulling Survey of Nearby Herbig Stars

Phil Hinz, Wilson Liu, and Bill Hoffmann (Email: phinz@as.arizona.edu)

Steward Observatory, University of Arizona, Tucson, Arizona

We have carried out a nulling survey of approximately 15 nearby Herbig Ae stars to probe circumstellar structure in the expected region of planet formation. The survey is made possible with BLINC – a unique, cryogenically cooled nulling interferometer at the Magellan and MMT telescopes coupled with the MIRAC mid-infrared camera. The survey has revealed several resolved disks and provides a basis for understanding the formation of structure around these stars in the expected era of planet formation. We will present the results of this survey as well as summarize the present and future prospects for extending nulling techniques to main sequence stars, both with the BLINC and its upcoming successor, the LBT Interferometer.

